

Work Order ID 110067

December-17-13 9:07:26 AM

D4148-1
B110067

110067

Page 1

Item ID: D4148-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Crosstube Lug Plate, Fwd

Start Date: 12/17/13 Start Qty: 16.00

16

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: PL Date: 12-12-17

Tooling:

Date:

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4148	E

100

0.00

100

Waterjet

Memo

0.00

FLOW CNC Waterjet

Cut as per dwg D4148

Prog Rev: E

Dwg Rev: 2

Deburr as required

20 0 Jm14-02-15

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

20 0 Jm14-02-15

Work Order ID 110067

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110067

Page 2

Item ID: D4148-1 Accept ***N19000040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Crosstube Lug Plate, Fwd
 Start Date: 12/17/13 Start Qty: 16.00 ***16*** Cust Item ID:
 Required Date: 12/17/13 Req'd Qty: 16.00 ***16*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00	DAS						
120		0.00	27			20			
QC	Memo		3-89						
Quality Control			14/2/18						
150	Identify as per dwg & Stock Location: <u>SL145</u>	0.00							
150		0.00				20X			14-3-18
Packaging	Memo								
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
160		0.00							
QC	Memo								
Quality Control									

DAS
28
9-88

MLJ 14-03-18

Picklist Print

December-17-13 9:07:26 AM

Page 1

Work Order ID: 110067
Parent Item: D4148-1
Parent Item Name: Crosstube Lug Plate, Fwd

Start Date: 12/17/13 Required Date: 12/17/13
Start Qty: 16.00 Required Qty: 16.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC
IPP Rev:B 10.10.29 as per revC DD verf:EC
DWG REV.D DD VERF:EC
IPP REV:C 11.03.02 AS PER

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M304S11GA		Purchased	No			100	sf	131.1993	0.3607	6.0749472			
304/316 0.125 Sheet													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT020		131.1992632							
				122521		19.1432632							
				124445		43.5							
				M126075		68.556							

126075

JM14-02-15

DART AEROSPACE LTD		Work Order:	110067
Description: Fwd Crosstube Lug Plate		Part Number:	D4148-1
Inspection Dwg: D4148 Rev: E		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	0.131"	-		✓	Jkmo1
Ø0.191	+0.005/-0.001	0.192"	-		✓	
Ø0.38	+0.006/-0.001	0.38"	-		✓	
Ø0.257	+0.006/-0.001	0.259"	-		✓	
Ø0.50	+0.008/-0.001	0.50"	-		✓	
0.94	+/-0.030	0.94"	-		✓	
4.47	+/-0.030	4.47"	-		✓	
0.750	+/-0.010	0.752"	-		✓	
8.47	+/-0.030	8.47"	-		✓	Jkmo6
8.096	+/-0.010	8.097"	-		✓	
5.43	+/-0.030	5.43"	-		✓	
5.197	+/-0.010	5.197"	-		✓	
4.733	+/-0.010	4.733"	-		✓	
0.310	+/-0.010	0.313"	-		✓	
0.750	+/-0.010	0.750"	-		✓	
0.375	+/-0.010	0.377"	-		✓	
1.84	+/-0.030	1.84"	-		✓	
0.92	+/-0.030	0.921"	-		✓	
3.000	+/-0.010	3.004"	-		✓	
0.750	+/-0.010	0.753"	-		✓	
0.625	+/-0.010	0.628"	-		✓	
1.982	+/-0.010	1.990"	-		✓	
0.991	+/-0.010	0.994"	-		✓	
0.77	+/-0.030	0.77"	-		✓	
1.54	+/-0.030	1.54"	-		✓	
2.47	+/-0.030	2.47"	-		✓	
0.82	+/-0.030	0.82"	-		✓	
3.57	+/-0.030	3.57"	-		✓	
1.23	+/-0.030	1.23"	-		✓	
0.73	+/-0.030	0.73"	-		✓	
0.125	+/-0.010	0.116"	-		✓	
Ø0.252	+0.003/-0.000	0.253"	-DAS		✓	

Measured by: Jm	Audited by: 27 9-89	Preliminary Approval:
Date: 14-02-15	Date: 14-2-18	Date:

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	10.10.08	Dwg Rev updated	KJ	
C	10.11.05	Dimensions updated per Dwg Rev C	KJ	
D	11.03.08	Dwg Rev updated	KJ	
E	12.02.01	Dimensions updated per Dwg Rev D	KJ	
F	13.11.26	Dwg Rev updated	KJ	

8

7

6

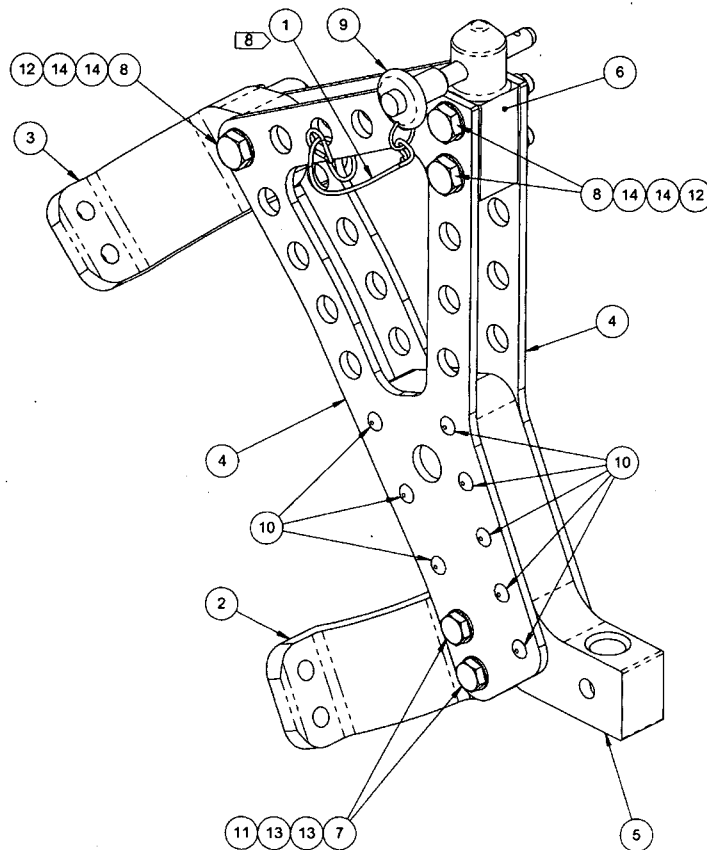
5

4

3

2

1



D4148-041 FWD X-TUBE LUG ASSY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4148-041" PER DART QSI 044 6.1
- 7) WEIGHT: 3.66 lbs
- 8) ATTACH D2690-6 TO D4148-1 BY LOOPING AROUND A LIGHTENING HOLE FIRST AND THEN SECURE TO MS17984-C413

110067
R/B-12-17

ITEM	QTY	P/N	DESCRIPTION
	X	D4148-041	FWD X-TUBE LUG ASSY
1	1	D2690-6	LANYARD
2	1	D3910-1	X-TUBE LUG
3	1	D4091-1	MOUNTING LUG
4	2	D4148-1	FWD X-TUBE LUG PLATE
5	1	D4148-3	STUD RECEIVER LOWER
6	1	D4148-5	EYEBOLT STUD
7	2	AN3C12A	BOLT
8	3	AN4C13A	BOLT
9	1	MS17984-C413	PIN, QUICK RELEASE
10	8	MS20615-4M18	RIVET, SOLID, PAN-HEAD
11	2	MS21043C3	NUT, SELF-LOCKING
12	3	MS21043C4	NUT, SELF-LOCKING
13	4	NAS1149C0332R	WASHER
14	6	NAS1149C0432R	WASHER

RELEASED
2013-08-16

E	B6-4 Ø0.266 HOLE ADDED FOR CARGO TUBE INSTALLATIONS.	AJS	13.07.22
D	HOLE DIA CHANGED TO 0.252" (D6-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1,C4-2)	SC	11.02.22
C	REDESIGNED D4148-1/3 TO ADDRESS COMPATIBILITY ISSUES WITH D350-591 SHORT STEPS	MB	10.10.12
B	REPLACED QTY(3) MS20615-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, B7-2 & B4-2); MS20615-4M18 WAS MS20615-4M20 (ZN D3-1 & B7-2); Ø0.191 2 PL REPLACES Ø0.129 3 PL (ZN D6-3); Ø0.129 7 PL WAS 10 PL (ZN A7-3); Ø0.191 WAS 0.129 (ZN C8-5). REASON: SEE TR-D350-807-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D4148	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
DATE	13.07.22	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

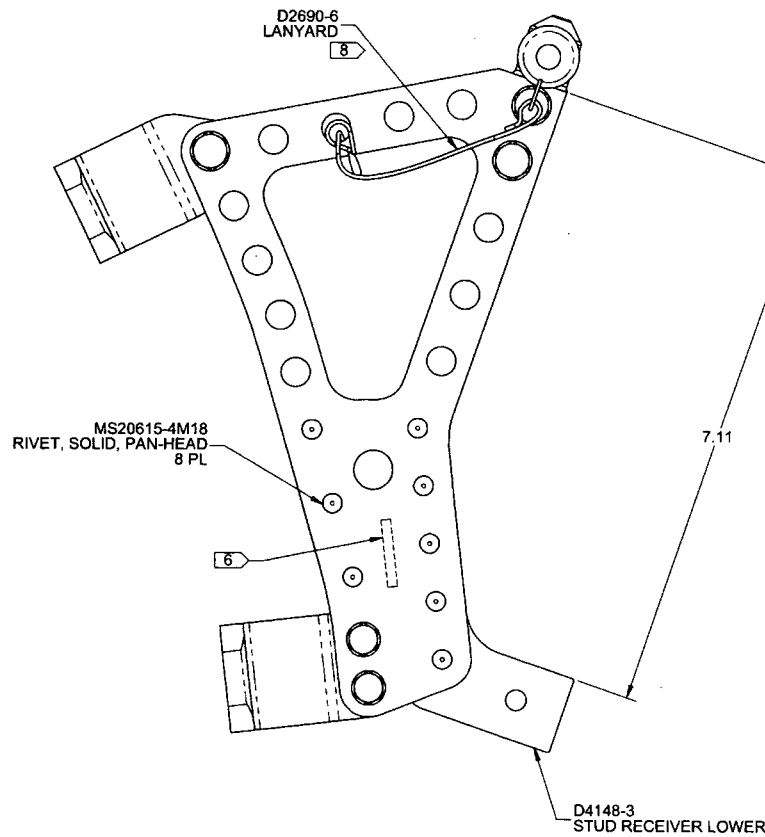
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D

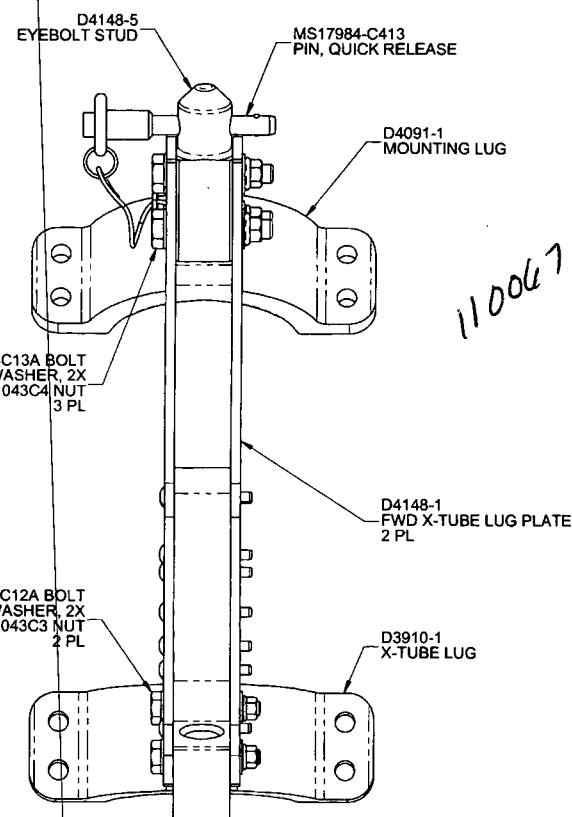
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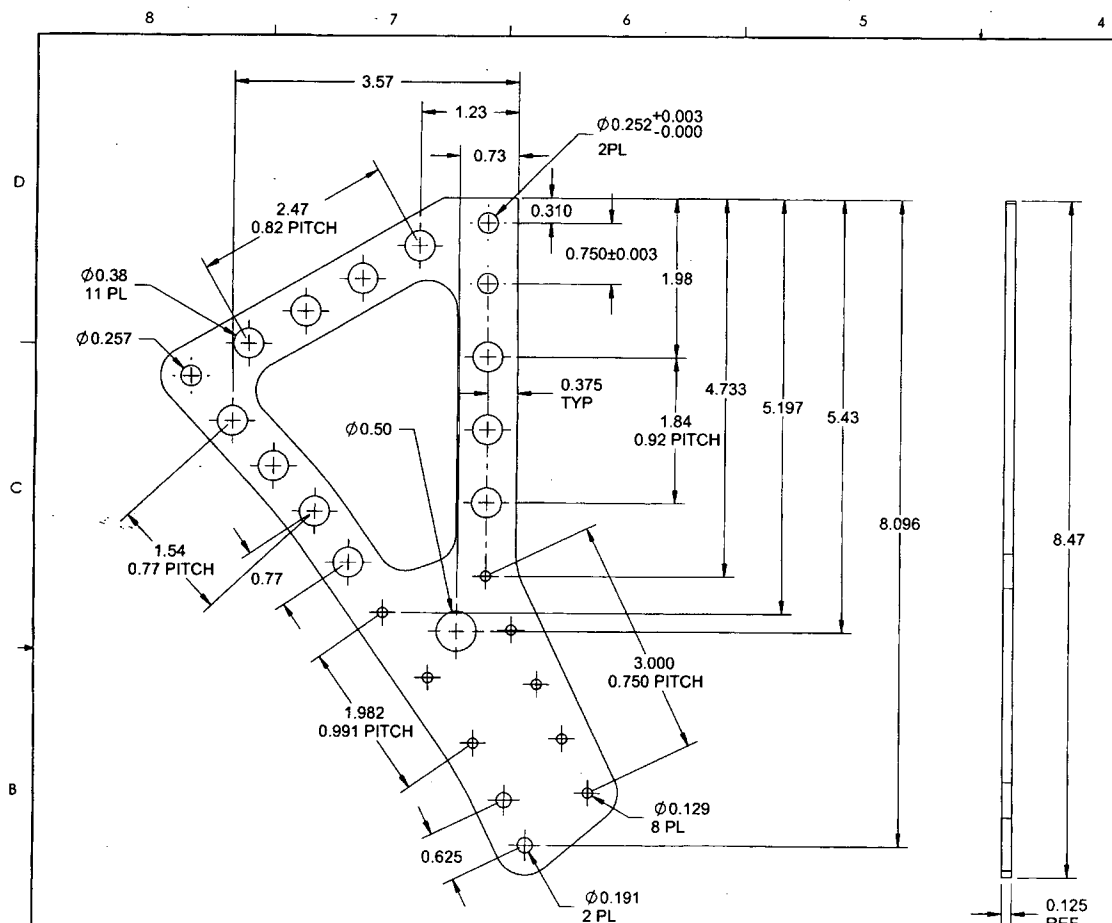
D4148-041 FWD X-TUBE LUG ASSY



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2013-08-16
NP

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DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO. D4148	REV. E
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 5	
APPROVED	<i>[Signature]</i>	TITLE FWD X-TUBE LUG ASSY	
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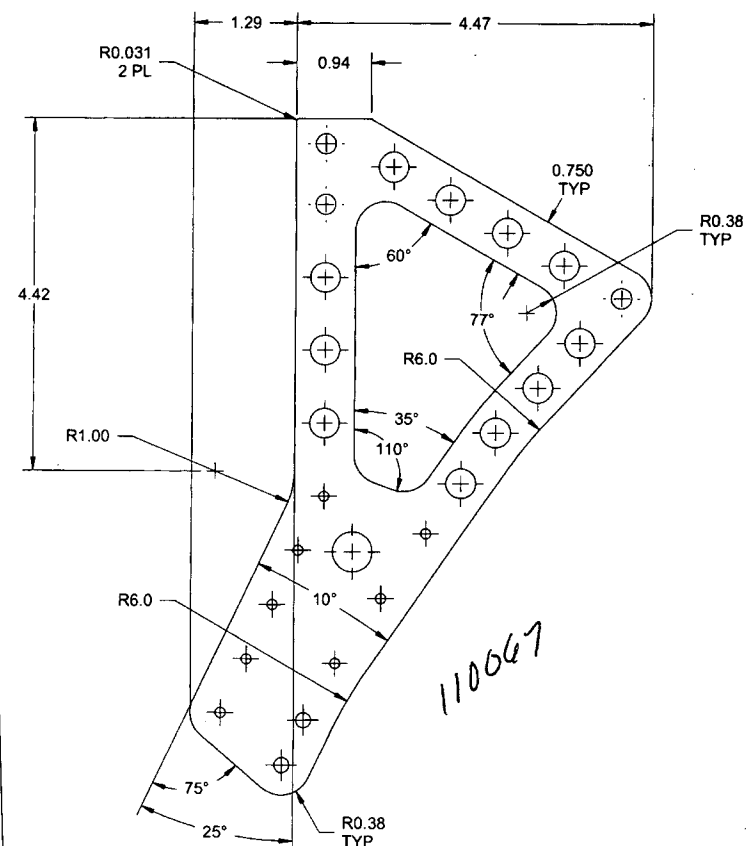
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D4148-1 FWD X-TUBE LUG PLATE

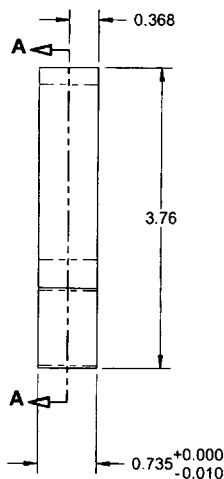
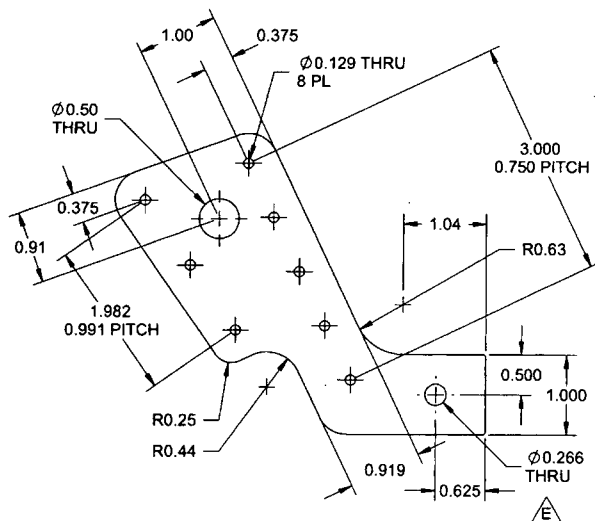
NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S11GA OR M303S11GA
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.52 lbs

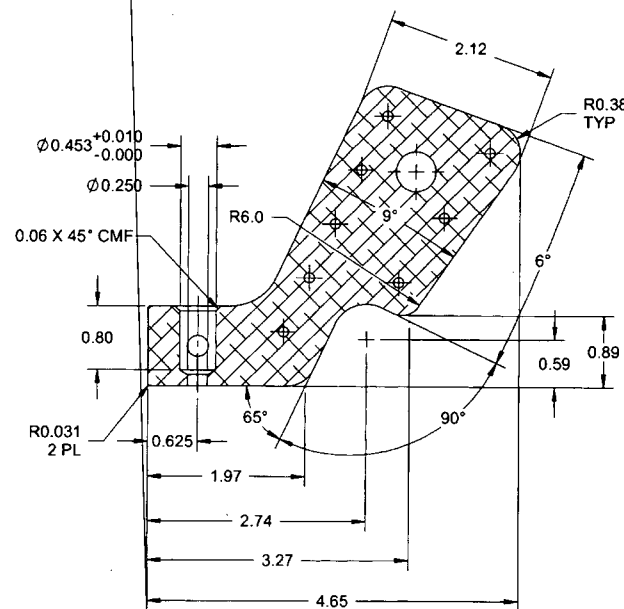


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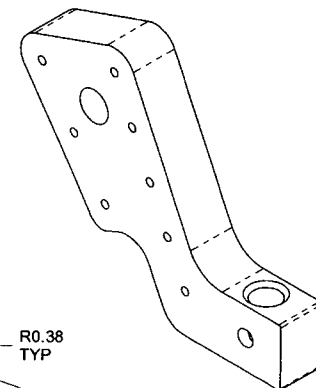
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MFG. APPR.		D4148	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
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D4148-3 STUD RECEIVER LOWER



SECTION A-A

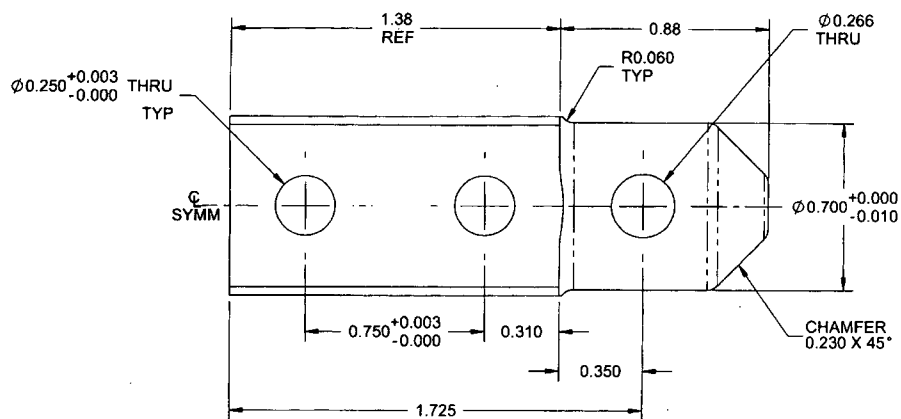


- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A582 OR ASTM A276
REF DART SPEC M304B OR M303B
 - 2) FINISH: NONE
 - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 1.51 lbs

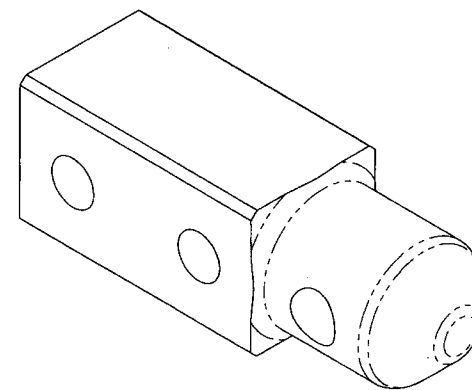
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DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D4148	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
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2013-08-16

116067



D4148-5 EYEBOLT STUD



NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A582 OR ASTM A276
REF DART SPEC M304B OR M303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.27 lbs

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO. D4148	REV. E
MFG. APPR.	<i>[Signature]</i>	TITLE FWD X-TUBE LUG ASSY	SHEET 5 OF 5
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DATE	13.07.22		

110067
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2013-08-16